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Brian Baird,
California Resources Agency

Subject: Comments on *Draft Policy on Coastal Erosion Planning and Response*

To amplify the extemporaneous comments made at the public meeting last week, I would like to make the following formal comments.

1. There is an implied assumption in the policy that maintaining a wide beach can substitute for the construction of seawalls or other backbeach structures. The policy needs to consider and recognize that normally wide and stable, non-eroding beaches (such as the one between Scripps pier and Point La Jolla) are subject to intense cross-shore transport phenomena during severe winters (e.g., El Nino of 1982-83.) During these winters, the thin veneer of sand may be removed from the bedrock and storm waves will impact structures that normally are untouched during the rest of the year. Seawalls, set at the extreme landward edge of the beach, provide protection in these cases and result in no degradation of the beach resource. It is unwise and incorrect to assume that a nourished beach, regardless of its width, will provide structural protection during severe winters. The beach at Venice, in Santa Monica Bay, is unnaturally wide (hundreds of feet in the summer) because of unintended nourishment from the construction of Marina Del Rey. Yet during the winter of 82-83, storm waves attacked the street bordering the beach and the County was forced to build seawalls to protect the lifeguard headquarters and other infrastructure. The use of seawalls on private property for protection from severe seasonal erosion in locations where either nature or the government maintains wide beaches at other times should not be proscribed – nor should unjustified claims of damage to the beach system be attributed to them.

2. There is a one-time problem that arises when beaches have been neglected for long periods and are then considered for nourishment to return them to their "natural" condition. Because the cover of sand is so thin on most California beaches, eroded beaches expose rocky substrate that was sand-covered continuously previously. Opportunistic species of plants and animals will move into these uncovered rocky environments and recovering them in a nourishment operation could easily be

interpreted as an impairment to the environment (this has already occurred in San Diego County.) To limit nourishment only to sites with no occupied rock outcrops or other recently derived living resources is a severe and expensive restriction. Further, beaches will tend towards more or less constant widths over entire littoral cells, such that rock that used to be under the sand will return to that condition through longshore transport. This carries with it the threat of law suits that further increase the cost of beach restoration. Every wetlands restoration involves removal or elimination of living resources in the name of restoring a natural system. The same philosophy should be applied when beaches are restored to their natural state. However, because of the conflict with existing views and regulations, it will require a firm and unequivocal policy statement by California to overcome the roadblocks that those agencies charged with preserving living resources will inevitably raise (and have raised) to beach nourishment. In the end, it may require a new law. At the least, this policy should recognize this potentially crippling problem and make the policy very clear.

3. The very specific requirement that only licensed geologists can make the determination of the danger of erosion-induced loss is a serious mistake. If the erosion is primarily of terrestrial origin (e.g., water penetration into weak bluff material) then geologists are among those who may be qualified to judge, along with – of course – licensed soils or geotechnical engineers. However, if the erosion is, or might be, primarily caused by wave action, then geologists are not qualified to judge the danger. Wave conditions vary significantly over scales as small as a few hundred meters of beach width. Licensed coastal engineers familiar with wave theory, the local wave climates, wave forces and wave-induced sediment transport are the group most qualified to render these judgements. The draft policy needs to be revised to reflect this reality.

Sincerely yours,

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